

Remarks

Claim 1 has been amended to incorporate the features of claim 6 and claim 9 and these dependent claims have been deleted. Further basis for this amendment can be found in the specification on page 16, lines 14-16. Claims 16 and 19 have been amended in a corresponding fashion to claim 1. Claims 17 and 18 have been amended to correspond with amended claim 16 and claim 20 has been amended to more clearly define the invention.

In section 2 of the Office Action the Examiner rejects claim 1 under 35 U.S.C. §102(e) as being anticipated by Andrews et al (US Patent No. 6,317,098). Reconsideration is requested.

Andrews describes "communication employing triply-polarized transmissions" (Andrews, title). Andrews does not describe "an antenna array comprising a plurality of transmit antenna elements" (this application, claim 1) but instead uses "three dipole antennas that are spatially orthogonal to each other" (Andrews, abstract and figure 1). Furthermore, Andrews does not disclose apparatus for "forming a plurality of antenna beams" (this application, claim 1). Andrews does not disclose, teach or even suggest use of beam forming apparatus. The present invention is clearly distinct from the device of Andrews as Andrews does not disclose two elements of the present invention as defined by the amended claim 1. Consequently the present invention is clearly not anticipated by Andrews.

The Examiner also cites Runyon (US Patent No. 6,067,053) which describes a "dual polarized array antenna" (Runyon, title). Runyon does disclose use of an array (Runyon, column 1, line 12) and shows use of a beam forming network (Runyon, Figure 1, element 16). However, Runyon does not teach use of "a plurality of antenna beams" (this application, claim 1, emphasis added). Instead Runyon uses a "substantially rotationally symmetric radiation pattern" (Andrews, column 2, lines 56-57). The radiation pattern is described in more detail as "a fan beam antenna

producing a major lobe whose transverse cross section has a large ratio of major to minor dimensions" (column 11, lines 55-57). Consequently the present invention as defined by claim 1 discloses an invention which is clearly not anticipated by Runyon, since Runyon does not disclose use of "a plurality of antenna beams".

As Andrews and Runyon fail to disclose either alone or in combination the use of "a plurality of antenna beams" (this application, claim 1), the applicants respectfully submit that the amended claim 1 is both novel and not obvious over the cited prior art and that the rejection cannot now be sustained.

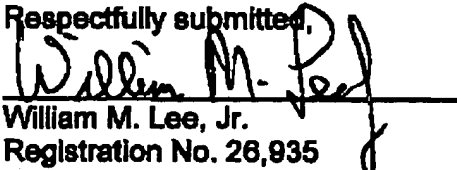
In section 2 of the Office Action the Examiner also rejects independent claims 16 and 19. As these claims have been amended in a manner consistent with claim 1, the above arguments are also applicable and the applicants respectfully submit that the rejections of claims 16 and 19 under 35 U.S.C. §102(e) cannot be sustained.

The Examiner also rejects dependent claims 2-5, 7, 8, 10-15, 17, 18 and 20-23. As these are dependent on claims which are now deemed allowable, it is respectfully submitted that these rejections are moot in light of the foregoing.

In view of the fact that all of the Examiner's comments have been addressed, further and favorable consideration is respectfully submitted.

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Respectfully submitted,


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